

ABSTRACT OF THE DISCLOSURE

1 Sub
H1
15 2 A method for tensioning and positioning a fiber optic cable includes providing a first portion
20 3 of the fiber optic cable in a first support. The first portion of the fiber optic cable is secured to the
19 4 first support with a first clamp attached to the first support. A second portion of the fiber optic cable
18 5 is then provided in a second support, and secured thereto with a second clamp attached to the second
15 6 support. A cam contacting the second support is then rotated, thereby rotating the second support
19 7 due to its weight and the weight of the second clamp. The rotation of the second support creates a
14 8 gravity-assisted moment arm that uniformly and repeatably tensions and positions the fiber optic
17 9 cable. After the fiber optic cable is uniformly tensioned and positioned, a laser may be applied to
10 10 the cable to etch a refractive-index grating in the glass optical fiber portion of the cable. Once the
17 11 grating is etched, the cable may be removed by reversing the method. Another fiber optic cable may
12 12 be inserted in the first and second supports, and the process may then be repeated.